JP, 09-191852, and A (1997) [FULL CONTENTS]

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#### Notee

- 1. Untranslatable words are replaced with asterisks (\*\*\*\*).
- 2. Texts in the figures are not translated and shown as it is.

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#### **FULL CONTENTS**

### [Claim(s)]

[Claim 1]A principal component, calcium salt, and an oligosaccharide are made into an active principle for a milk fermentation product, nucleic acid foodstuffs, a shark cartilage, chlorella, collagen, and agaricus -- a mushroom and a champignon extract. Health food characterized by a thing which was chosen from a group which consists of \*\*\*\*\*\*, eucommia ulmoides tea, Eucommia-ulmoides-bark ginseng radix tea, sweet tea, a multivitamin agent, iron, soybean peptide, angelica, an aloe, and Gymnema, and which contain a kind as auxiliary ingredients at least.

[Claim 2] The health food according to claim 1 whose milk fermentation products are yogurt and/or a kefir.

[Claim 3] The health food according to claim 1 or 2 whose calcium salt is cow's milk calcium and/or calcium lactate.

[Claim 4] The health food according to claim 1, 2, or 3 whose oligosaccharides are a chain oligosaccharide and/or cyclic oligosaccharide.

# [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the health food of the new presentation containing the active principle and auxiliary ingredients which raise the health effect over a human body synthetically, without starting the health food which gives the health effect to a human body, and impairing the flavor of a milk fermentation product in detail.

[0002]

[Description of the Prior Art]A health food boom in recent years is reflected, and various health food is developed and marketed. For example, an amount of consumption increases with a rise of concern about the health effect which fermented milk has, and yogurt which is a fermentation product of beast milk has spread through each home. As health food of a fermentation product, this invention persons have the physiology effect, developed the method of manufacturing effective lyophilization yogurt and this lyophilization yogurt from fermented milk and a kefir on health, and already proposed as JP,S62-83842, A.

[0003] However, the health effect of a milk fermentation product is influenced by the fermented material

originating in the bacillus used by the fermentation process in this milk fermentation product manufacture in many cases, and had a fault naturally limited to a specific effect.

[0004]These people cancel the above-mentioned fault and expand further from the specific range to which the health effect of the milk fermentation product affected by big influence by \*\*\*\* used by a fermentation process was restricted, [ the synthetic and higher health effect which was not acquired in the health food of the conventional milk fermentation product origin ] [ as health food which can be given to a human body ] Health food by which calcium salt, an oligosaccharide, and honey being included in a milk fermentation product as an active principle was developed and proposed (Tokuganhei7-212927).

[0005]

[Problem to be solved by the invention]While this invention develops and improves the invention of above-mentioned Tokuganhei7-212927 further and the purpose raises the physiology function to a human body further, it is in providing the health food outstanding also in taste.

[0006]

[Means for solving problem][ the health food of this invention for attaining the above-mentioned purpose ] A principal component, calcium salt, and an oligosaccharide are made into an active principle for a milk fermentation product, nucleic acid foodstuffs, a shark cartilage, chlorella, collagen, and agaricus -- a mushroom and a champignon extract. It is characterized [ constitutional ] by the thing which was chosen from the group which consists of \*\*\*\*\*\*, eucommia ulmoides tea, Eucommia-ulmoides-bark ginseng radix tea, sweet tea, a multivitamin agent, iron, soybean peptide, angelica, an aloe, and Gymnema and which contain a kind as auxiliary ingredients at least.

[0007]

[Mode for carrying out the invention] The milk fermentation product in the health food of this invention is yogurt or the kefir which is a fermentation product of beast milk, and milk, such as a cow, a horse, a sheep, and a goat, is contained in beast milk. The method in particular of manufacturing a fermentation product from these beast milk is not limited, and can adopt now the manufacturing method etc. of fermented milk KOMISU from the mare's milk currently performed in the yogurt which uses cow's milk as a raw material, the manufacturing method of a kefir, or East Europe, for example. However, the kefir of the milk fermentation product acquired by addition and fermentation in a kefir bacillus is preferably used especially for cow's milk, and this kefir can be manufactured by the method of JP,S62-83842,A. [0008] The form of a milk fermentation product may be the shape of granulation or the shape of a tablet acquired by fabricating the shape of yogurt which presents the shape of milk white mud, the powdered product acquired by performing a drying process like lyophilization of said yogurt-like product, or this powdered product.

[0009]At least one sort chosen from the group which consists of cow's milk calcium and calcium lactate as calcium salt which is an active principle of the health food of this invention is used. Cow's milk calcium is the white powder (Ca content: 18 weight % or more) which separated protein and lactose from the liquid part separated when manufacturing cheese from cow's milk, i.e., cow's milk, and raised the minerals of cow's milk origin, especially the content of calcium, and it has delicate milk flavor. [0010]Calcium lactate is marketed by a bread, confectionery, flour, dried milk, tofu, bean paste, etc. as a source of calcium strengthening, and also. [ calcium lactate ] It uses also as a seasoning and an inflating agent, and excels in water solubility as compared with calcium diphosphate, the third calcium phosphate, calcium carbonate, calcium citrate, etc., therefore the absorption coefficient to the inside of the body is

made into the best calcium source. The most suitable calcium lactate for this invention is L-calcium lactate manufactured by fermentation. This Reason is because only L-mold lactic acid is metabolized in that it is water solubility and a body unlike synthetic calcium lactate [ like DL-calcium lactate ] in which this L-calcium lactate is. The calcium salt which composes this invention is independent about these cow's milk calcium or calcium lactate, respectively, or it is used for it for both, mixing.

[0011]Monosaccharides, such as glucose, fructose, or galactose, carry out a 2-10-piece glycosidic linkage to an oligosaccharide, and some commercial items are already known. This oligosaccharide is a mixture of a chain oligosaccharide, cyclic oligosaccharide, or these both, among these monosaccharide carries out the glycosidic linkage of the chain oligosaccharide to a chain, and the glycoside which the chain oligosaccharide combined with compounds other than the chain oligosaccharide which has branching, or sugar is also contained.

[0012]Specifically, \*\*\*\*, a FURAKUTO oligosaccharide, lacto-fructo-oligosaccharide, lactose galactosaccharide, a xylo oligosaccharide, galacto-oligosaccharide, a branching oligosaccharide, etc. can be mentioned as a chain oligosaccharide. The cyclodextrin with which glucose was annularly connected by 6-8 alpha-1 and 4 bindings as cyclic oligosaccharide, The branched cyclodextrin which the glucosyl group or the Mull tosyl group combined with this cyclodextrin ring by alpha-1 and 6, The galactosyl branched cyclodextrin which the galactosyl group combined with the glucosyl group of the side chain portion of a direct or branched cyclodextrin ring by beta- or alpha-binding at the cyclodextrin ring of cyclodextrin or branched cyclodextrin, Or the cyclic oligosaccharide etc. with which 6-8 molecules of fructose was annularly connected by beta-2 and 1 binding are mentioned.

[0013]These oligosaccharides are prepared by methods, such as a hydrolysis of extraction of natural isolation sugar, polysaccharide, and glycoside, chemosynthesis, and enzyme synthesis, as already known, but an enzyme synthetic process is used most widely. In this invention, these chains and cyclic oligosaccharide can be used suitably, for example, a single kind of a chain oligosaccharide or cyclic oligosaccharide, two or more sorts, or a chain and a mixed kind of cyclic oligosaccharide are used, and the mixing ratio in particular at the time of mixed use is not limited.

[0014]Health food of this invention makes calcium salt and an oligosaccharide a principal component for the above-mentioned milk fermentation product with an active principle, furthermore -- as auxiliary ingredients -- nucleic acid foodstuffs, a shark cartilage, chlorella, collagen, and agaricus -- a mushroom. The characteristic health effect which auxiliary ingredients have can be given by adding at least one component chosen from a group which consists of a champignon extract, \*\*\*\*\*, eucommia ulmoides tea, Eucommia-ulmoides-bark ginseng radix tea, sweet tea, a multivitamin agent, iron, soybean peptide, angelica, an aloe, and Gymnema.

[0015]Aging prevention nucleic acid activates normal division of a human body cell, and according to an increase in energy expenditure, An obesity prevention operation, adult disease prevention by promotion of metabolism, protection against infectious diseases by improvement in immunity power, An operation of diabetes prevention by improvement of hormone balance, a menopausal-disorders improvement, etc. is shown, good bacteria in intestines are made to increase further, and it is said that there are effects, such as allergy, atopy, constipation prevention, and Japanese quince prevention by activation of a nerve cell. Required quantity of nucleic acid is about 2g per day for a person with a weight of 50 kg, and to take in at least 1.5 g from a meal is needed.

[0016][ foodstuffs / which are added by the health food of this invention as auxiliary ingredients / nucleic acid ] as the food group which says the foodstuffs containing deoxyribonucleic acid

(Deoxyribonucleicacid, DNA) and ribonucleic acid (Ribonucleicacid, RNA), and contains DNA -- for example, milt and a paste -- it writes and a beer yeast extract is among a chip, boiled and dried baby sardines, a sardine, and the typical foodstuffs it is needed, and there are \*\*, jellyfish, chicken, pork liver, a soybean, an azuki bean, etc., and contain RNA. The foodstuffs containing these [DNA and RNA] may use both together, and may use each independently, and can also use the commercial item of powdered or the nucleic acid extraction extract fabricated granulation and in the shape of a tablet. Since it also becomes a cause which nucleic acid has the operation which raises a uric acid value in the living body, and causes gout etc., it is preferred to use vitamin C together.

[0017] The chondroitin which is proteoglycan is contained in the shark cartilage. This chondroitin has the function to combine a cell and tissue and to hold moisture, exists in the skin, a blood vessel, a cornea, etc. mostly, and commits living body defense, maintenance of the rhythm of condition, prophylaxis, recovery, aging prevention, etc. Therefore, it will become easy to suffer from various adult diseases, such as rheumatism, arthritis and arteriosclerosis, and diabetes mellitus, if chondroitin runs short. [0018] Chondroitin has a blood vessel development control action, in order that tumors, such as cancer, may increase, it needs blood, and it is supposed that there is work which stops the operation which makes the network of a new blood vessel it. It is said that this substance for blood vessel development control has an effect also in many illnesses caused by a relation with blood vessel rebirths, such as rheumatic arthritis to which not only cancer but a capillary vessel is unusually newly born, diabetic retinopathy which the rebirth of a blood vessel becomes a cause and loses eyesight, a skin disease, and enteritis. A shark cartilage powder-izes the extract from a shark fin etc., for example, and is used. [0019]the chlorophyll (chlorophyll) which chlorella is a kind of green algae which inhabits fresh water, and is contained abundantly -- in addition, protein, a carbohydrate, an essential amino acid, a mineral, various vitamins, etc. are included. When chlorella cells are grown and divided in recent years, the chlorella extract produced in large quantities attracts attention, and there are effects, such as strengthening of resistance to viruses, such as activation of the cell by this characteristic component, an antidotal effect, and cold, and an improvement to the alkaline body of an acidic body. Specifically, they are the health effects, such as diabetes mellitus, hypertension, ischemia, obesity prevention, an improvement of a weak constitution, and physical strength enhancement.

[0020]Collagen is protein which forms the connective tissue in the depths (dermis) of the skin. Fresh collagen is rich in elasticity, its moisture holding power is large, it has the operation which holds the skin in the state where there is a beam, fresh, and can be extracted and obtained from gelatin of the bone of a natural raw material, for example, a cow. Although the cosmetics containing collagen give grace to the skin, in order to permeate and to improve the senility of the skins, such as fine lines and sag, fundamentally, it is preferred to take in collagen and to supply from the inside of the body. [0021]agaricus -- Brazil and the Sao Paulo suburbs are the mushrooms of the department of a field mushroom of the place of origin, and cultivation has begun the mushroom (Agaricus Blazei Murill) around from Showa 40(1965) in Japan. It is said that characteristic polysaccharide is included, and since this polysaccharide improves the immunity of a human body, it shall be effective. Although the effect is reported also to the therapy of hepatitis C, diabetes mellitus, etc. and the dry matter was brewed and drunk from the former, it is preferred to use what powder-ized the extraction extract in this invention. [0022]A champignon extract is an extraction extract from a mushroom, and having the bioactive effect and odor eliminating is known. This champignon extract acts on the bio-flora in intestines, improves fecal characteristics, and it controls the increase in the harmful bacillus which builds the toxic substance

in intestines, and improves a toilet odor. It is the substance to which the improvement effect of body odor or bad breath is also reported and which attracts attention from the young female layer these days. [0023]\*\*\*\*\* is tea produced by roasting the leaf of a mulberry, and it is said that the liquid which extracted this contains calcium, magnesium, potassium, sodium, a phosphorus, and iron. In China, it is supposed that it is used noting that it is good for health for many years, and especially hypertension has drug effect. In addition, an effect is observed also in an improvement and insomnia of the blood sugar level and a cholesterol count, and the carcinogenic control action is also expected.

[0024]A cull shim, magnesium, iron, zinc, etc. are contained in eucommia ulmoides tea, and it is also a secret medicine of ancient China. A blood vessel and a matrix are made flexible, blood vessel circulation is promoted, and since metabolism of collagen is made active and the sag and wrinkle of the skin by aging are prevented, lustrous skin is maintained, and it is supposed that the effect of constipation dissolution is also high.

[0025]Eucommia-ulmoides-bark ginseng radix tea blends eucommia ulmoides tea and Korean ginseng tea, and aims at both synergistic effect. A ginseng radix acts to raise the protein synthesis of a living body cell, and metabolism of the cell itself is made active. In addition, the operation which, on the other hand, activates the collagen which combines a cell and a cell with eucommia ulmoides tea gives the vital force to the cell itself in an operation of a ginseng radix, and the health effect is demonstrated by lean figure, cosmetics and also recovery from fatigue, aging prevention, etc. according to these synergistic effects.

[0026]Sweet tea is tea with the sweet taste which used as the raw material the leaf of the vegetation which grows wild in southern China and Guangxi, and has been drunk more from ancient times, and the thing of the department raspberry group of Bala in a raw material plant attracts attention in respect of the antiallergic effect over pollinosis etc. in recent years. It is supposed that there is furthermore an effect in better appetite, expectration, a cough medicine, alleviation of fever, etc., and it is used for this invention as a sweet tea extract.

[0027]A multivitamin agent functions on supply of the vitamin group which it cannot finish compensating in the eating habits of the present age with being dining out and a processed food and clearing up [ much ]. That a carbohydrate, protein, and the three major nutrients of a fat can serve as an energy source also depends on an operation of these vitamin group, and the ingestion from three meals is an ideal essentially. These vitamins prevent an adult disease and obesity, it is indispensable to leading a youthful healthy life, and can use the commercial item which made the one pack ten or more sorts of vitamins, such as a vitamin B group, vitamin C, and vitamin D, for this invention.

[0028]According to the Ministry-of-Health-and-Welfare basis in iron, 11 mg and the iron which a human body needs in this are 1 mg, and the required quantity on the 1st is contained in hemoglobin whose about 70% of the iron in a human body is a principal component of erythrocytes. That is, in order to supply 1 mg of iron to a human body, the 10 times as many iron must be contained in food and drink. a complexion worsening and becoming that it is easy to get tired, if this iron runs short \*\*\*\* -- early rising -- being hard -- etc. -- condition, ischemia, forgetfulness, and also a tongue will fester, and condition, such as anorexia, dyspepsia, and constipation, will be brought about. Although there are liver of a pig, an egg, soybean flour, dried sardines, etc. as food containing many iron, it is difficult to take in from the present life style and eating habits.

[0029]It is ideal protein, and amino acid balance is effective in reducing cholesterol in blood constituting the cause of arteriosclerosis other than the effect into which the original muscles and bone of protein are

used for this invention.

developed, and soybean peptide, i.e., soybean protein, has it. [ effective in prevention of blood vessel hindrance ] It is used also as diet food and it is said that there is the cosmetics lean figure effect. [0030]Since angelica says by the perennial herbaceous plant eaten in Izu Islands for many years, "A bud already comes out tomorrow although loaded today", it is said to have been named angelica, and it is also called long-life grass from the strength of the vitality. Vitamins, such as vitamin B groups including vitamin B <sub>12</sub>, vitamin C, vitamin A, carotene, calcium, and iron, minerals, chlorophyll, etc. are contained

in angelica. Although a green leaf can be eaten as boiled greens, dressed dishes, tempura, etc., it is preferred to use what used the dried leaf as powder or a tablet in this invention.

[0031]An aloe is a succulent plant produced from the subtropical zone of non-frost to a tropical dry land, and it is said that the kind will exceed 400 if the object for appreciation is included. Being grown as a health food raw material in Japan now, most is a "KIDACHI aloe", "Bella" is grown in part and the leaf of many meat is mainly used. It is said that it is effective in the improvement of constipation and an improvement of alimentary systems, such as relaxation, chronic gastritis, a gastric ulcer, etc. of various condition (an animal pile, dizziness, dry rough skin, a pimple, anorexia, etc.) accompanying constipation. Existence of carboxypeptidase with an antiinflammatory effect is checked and the elucidation of mechanisms, such as a stomachic operation, an antiulcer action, an anti-\*\*\* operation, antidiabetic influence, and an anticancer operation, is also progressing. What was powder-ized with the truth room freeze drying method is used for this invention.

[0032]Gymnema is an extract of the Gimnema sylvesta contained in the vine grass of the department of GAGAIMO which makes India native. Gymnema acts to make not sense that sweet taste bites the leaf of vine grass, for example, and this is carried out, in order that the gymnemic acid contained in Gymnema may work on the cell which feels the sweet taste of a tongue and may control binding of sugar. Therefore, it is said by taking in Gymnema that there is an effect which the same operation is performed and controls work of sugar also by a small intestine. That is, absorption of sugar leading to obesity is controlled and it can be said to be desirable diet food especially for a woman. An operation of Gymnema is committed only to sweet taste, and bitterness, saltiness, and sour are not influenced, but the effect is

[0033]These principal components, an active principle, and auxiliary ingredients are blended at a respectively proper rate according to the purpose. For example, it is calcium salt to 100 weight % of milk fermentation products of powder, the shape of granulation, or the shape of a tablet which are a principal component, [CH<sub>3</sub>CH(OH) COO] As 2Caand5H<sub>2</sub>O, 0.3 to 0.9weight %, it is 0.5 to 0.7 weight %

also maintained from 30 minutes for 2 hours. What powder-ized the Gymnema extract and this extract is

preferably, and blend an oligosaccharide at 2 to 8weight % of a rate preferably two to 10weight %. When the milk fermentation product used as a base has the shape what is called of yogurt, in the case of powder, granulation, or the shape of a tablet, it converts, and is blended at an above-mentioned rate. [0034]With nucleic acid foodstuffs, the blending ratio of auxiliary ingredients as nucleic acid 0.5 to 2.5 weight %, Are 1.0 to 2.0 weight % preferably, and a shark cartilage 0.1 to 0.3 weight %, Preferably chlorella two to 5weight % 0.15 to 0.25weight % 3 to 4 weight %, collagen -- 5 to 10 weight % -- desirable -- 7 to 8 weight %, and agaricus -- 0.5 to 1.5weight %, [a mushroom] Preferably a champignon extract 0.8 to 1.2weight % 1 to 3 weight %, Preferably \*\*\*\*\*\* one to 5weight % 1.5 to 1.8weight % 2 to 4 weight %, Eucommia ulmoides tea preferably Eucommia-ulmoides-bark ginseng radix tea two to 3weight % one to 4weight % 2 to 5 weight %, Preferably sweet tea 0.5 to 3weight %

three to 4weight % 1 to 2 weight %, A multivitamin agent preferably iron 2.5 to 3weight % two to 4weight % 1 to 4 weight %, Three to 6weight %, preferably, soybean peptide is 4 to 5 weight %, three to 6weight %, it is desirable, 4 to 5 weight % and an aloe are preferred one to 5weight %, angelica is 2 to 3 weight %, and it is 2 to 3 weight % preferably one to 5weight % in Gymnema two to 3weight %. [0035] The health food of this invention which blended the principal component, the active principle, and auxiliary ingredients which were mentioned above may be which form of powder, the shape of granulation, the shape of a tablet, or the shape of yogurt, and use is presented with it with a proper form according to each purpose. When it will be in a thick state to such an extent that inconvenience and inconvenience are produced at ingestion depending on combination to a principal component, an active principle, and auxiliary ingredients in the case of a yogurt-like form, it can dilute with water to moderate concentration, and can take in to it. Especially in a summer, even if it is in the thick state of the grade which does not need dilution by water, for example, if it dilutes positively and cools, it can also drink as soft drinks. The health food of this invention can also be used as an additive to other foodstuffs, for example, confectionery, baked goods, a fishcake tube, boiled fish paste, etc., and can add an extender, modeling material, a seasoning, a coloring agent, etc., and can also improve a goods function. [0036] The active principle to which the health food of this invention becomes a milk fermentation product which is a principal component from calcium salt and an oligosaccharide as mentioned above, nucleic acid foodstuffs, a shark cartilage, chlorella, collagen, and agaricus -- a mushroom and a champignon extract. Since at least a kind of auxiliary ingredients chosen from the group which consists of \*\*\*\*\*, eucommia ulmoides tea, Eucommia-ulmoides-bark ginseng radix tea, sweet tea, a multivitamin agent, iron, soybean peptide, angelica, an aloe, and Gymnema are contained, the following synthetic physiology effect is demonstrated.

[0037]First, in bringing about a ready intestines operation about the health effect of a milk fermentation product, There are prevention of the various diseases of the stomach and intestineses, such as stomach acid lack, diarrhea, and \*\*\*\*\*\*, and a curative effect, An immunostimulatory action is suggested in connection with the viewpoint of infection defense centering on an alimentary canal to the cancer cell inhibition effect, Improvement in an immune response, activation of macro FAGI which is an immunocompetent cell, or a spontaneous killer cell, and influence on the cytokine which participates in differentiation and activation of these cells further are clarified. It is suggested from many researches that ingestion of a milk fermentation product controls the development of cancer, and antitumor activity also has it.

[0038]It is preferred to use cow's milk calcium and calcium lactate as calcium salt, and resistance in the case of ingestion and foreign body sensation can be lessened by the delicate milky flavor which cow's milk calcium has. Calcium lactate is excellent in the solubility to water as compared with calcium phosphate, calcium carbonate, calcium oxalate, etc., therefore tends to be absorbed into a human body, and becomes the osteoporosis and pregnant women and nursing mothers resulting from the shortage of calcium, a child of a growth phase, etc. with a desirable nutrient.

[0039]An oligosaccharide is a growth factor used as the nutritive substance of lactic acid bacteria which are the useful bacilli in intestines, such as lactobacillus bifidus and a lactobacillus, and Streptococcus faecalis. On the other hand, disease germs, such as a WERUTSUSHI bacillus of a harmful bacillus, Escherichia coli, Vibrio cholerae, cannot make an oligosaccharide a nutrition. Therefore, the useful bacillus in intestines can increase by ingestion of an oligosaccharide, and the desirable intestinal environment of useful bacillus dominance can be built. Although an oligosaccharide is used for various

foodstuffs as sweeteners, since the enzyme which decomposes an oligosaccharide is scarce in intestines, it is absorbed from intestines and hardly becomes a calorie. In spite of sugar, since an oligosaccharide is hardly used as nutritive substance of the Mu wardrobe bacillus which caused the cavity, it cannot cause a cavity easily. For this reason, since the development of the quality of a septic matter within intestines, a toxic substance, a toxin, etc. decreases by oligosaccharide intake, the inside of intestines is cleaned, and the burden of the liver which processes a toxin etc. can be eased. Since generation of the quality of a septic matter or a toxin decreases simultaneously, skin is effective also in the improvement of the cosmetics effect which becomes beautiful, and bowels. Since the oligosaccharide cannot serve as a calorie source easily, it is effective in the measure against obesity, and it also becomes prevention of a cavity. Cyclic oligosaccharide has a cavity in the center of a molecule, and the inside of a cavity A canal field, Since the exterior is a hydrophilic field, it has a function which carries out inclusion of various kinds of substances in the hydrophobic cavity, and it also becomes possible to aim at improvement of physical properties, such as stabilization of an unstable substance, a taste, a smell, and solubility, emulsification, improvement in foamability, etc. using this character. [0040]Since the health food of this invention adds auxiliary ingredients in addition to each abovementioned component, it can give various kinds of physiology effects originating in auxiliary ingredients. That is, when the nucleic acid foodstuffs containing nucleic acid are blended, a female lustrous skin operation is brought about by activation of efficacy, such as aging prevention by promotion of a metabolism function, and adult disease prevention, or a cell in the living body. [0041] The arthritis brought about by the \*\* Gunn effect and a blood vessel rebirth according [ a shark cartilage ] to a blood vessel development control action, When strengthening of resistance to the physical strength enhancement whose effect to diseases, such as \*\*\*\*\*, depends chlorella rich again, an improvement of a weak constitution, and a virus, etc. blend collagen, to the senility of the skin, it is effective and a desirable lustrous skin operation is given especially for a woman, agaricus -- a mushroom improves immunity and a toilet odor, bad breath, and a body odor improvement effect are demonstrated for curative effects, such as hepatitis C and diabetes mellitus, with a champignon extract. [0042]By abundant mineral content, when \*\*\*\*\* is blended, it is effective in the improvement of hypertension, the blood sugar level, or a cholesterol count, and, [eucommia ulmoides tea] With Eucommia-ulmoides-bark ginseng radix tea, effects, such as cosmetics, recovery from fatigue, and aging prevention, are given, and an antiallergic effect is given for the aging prevention and the beautiful skin effect of the skin by metabolism activation of collagen by a cell activation operation of a ginseng radix, and collagen activation operation of eucommia ulmoides tea with sweet tea again, respectively. [0043]It is effective in the supply of iron which cannot take in iron easily with a present-day life style again to supply of the vitamins a multivitamin agent tends to be insufficient for with eating habits of a man of today. soybean peptide -- the effect as diet food -- angelica -- supply of vitamins and minerals -furthermore -- an aloe -- the effect of a constipation improvement or a stomachic operation -- there is an effect of suppressing an operation of the excessive fat and sugar leading to obesity in Gymnema. [0044] Thus, in addition to the peculiar effect which a principal component, an active principle, and auxiliary ingredients have, the outstanding health effect by the synergism of these each component is given, and the health food of this invention can give the unique health effect by changing especially the combination of auxiliary ingredients and its blending ratio. It is possible to carry out a quality design suitably according to the health effect which there is no resistance in ingestion and both small children and old men make the purpose by the flavor which a milk fermentation product has.

### [0045]

[Working example]Hereafter, the health food of this invention is explained in detail based on working example.

[0046]To the calcium salt which is an active principle, using the lyophilization powder of a kefir as a working example 1 milk fermentation product Cow's milk calcium powder, Chain oligosaccharide powder was used for the oligosaccharide, as the powder extract extracted from deoxyribonucleic acid (DNA) as nucleic acid foodstuffs which are auxiliary ingredients, and a shark cartilage, it fully mixed at a following rate using the powder which powder-ized the extract from a shark fin, and the dried powder end of angelica, and uniform powder mixture was prepared. Subsequently, this powder mixture was fabricated and tablet-like health food was manufactured.

## [0047]

Lyophilization powder of a kefir: 100g cow's milk calcium powder: 0.5g chain oligosaccharide powder: 4gDNA powder extract: Powder of a 1.5g shark fin extract: The end of 0.2g angelica dried powder: [ the health food obtained 4.5g ] In addition to the sweet taste and the pure scent by the milky aroma, cow's milk calcium, and the chain oligosaccharide which a kefir has, it had the health effect outstanding by the physiology function which can be given from each added auxiliary ingredients, and was health food very desirable also to eating.

[0048]Using the lyophilization powder of the same kefir as working example 2 working example 1, calcium lactate was used for calcium salt and cyclic oligosaccharide powder was used for the oligosaccharide. After blending with auxiliary ingredients at a following rate using a multivitamin agent, iron, soybean peptide powder, and the dried powder end of an aloe and preparing uniform powder mixture, it fabricated and tablet-like health food was manufactured.

### [0049]

Lyophilization powder of a kefir: 100g calcium lactate powder: 0.6g cyclic oligosaccharide powder: 3g multivitamin agent: 2.5g iron: 2.5g soybean peptide powder: The end of 4.5g aloe dried powder: [ the health food obtained 2.5g ] In addition to the sweet taste and the pure scent by the milky aroma, calcium lactate, and cyclic oligosaccharide which a kefir has, it is the health food which has the health effect outstanding by the physiological function brought about by each added auxiliary ingredients, and is very easy to eat.

[0050]As working example 3 auxiliary ingredients, replaced with in the end of powder of a DNA powder extract of working example 1, and a shark fin extract, and angelica dried powder, and used powder of chlorella, collagen, and Eucommia-ulmoides-bark ginseng radix tea, and also. After mixing at a following rate using the same milk fermentation product as working example 1, calcium salt, and an oligosaccharide and preparing uniform powder mixture, granulation was carried out and granulation-like health food was manufactured.

# [0051]

Lyophilization powder of a kefir: 100g cow's milk calcium powder: 0.5g chain oligosaccharide powder: 4g chlorella powder: 3.5g collagen powder: The end of a 7g Eucommia-ulmoides-bark ginseng radix tea powder: Health food obtained 4g has the same flavor as health food of working example 1, It was the health food which has the outstanding health effect brought about from auxiliary ingredients. [0052]As working example 4 auxiliary ingredients, a multivitamin agent of working example 2, iron, soybean peptide powder, replacing with aloe powder — agaricus — after having used a mushroom, a champignon extract, and eucommia-ulmoides-tea powder, and also mixing at a following rate using the

same milk fermentation product as working example 2, calcium salt, and an oligosaccharide and preparing uniform powder mixture, it fabricated and tablet-like health food was manufactured. [0053]

lyophilization powder [ of a kefir ]: -- 100g calcium lactate powder: 0.6g cyclic oligosaccharide powder: 3g agaricus -- mushroom: 1g champignon extract: 1.5g eucommia-ulmoides-tea powder: The health food obtained 3g was foodstuffs provided with the outstanding physiology function brought about from auxiliary ingredients of rich nourishment.

[0054]As working example 5 auxiliary ingredients, the multivitamin agent of working example 2, iron, soybean peptide powder, After having replaced with aloe powder, and having used collagen, \*\*\*\*\*\*, angelica, and Gymnema, and also mixing at a following rate using the same milk fermentation product as working example 2, calcium salt, and an oligosaccharide and preparing uniform powder mixture, granulation was carried out and granulation-like health food was obtained.

# [0055]

Lyophilization powder of a kefir: 100g calcium lactate powder: 0.6g cyclic oligosaccharide powder: 3g collagen: 7g \*\*\*\*\*\*: 3g angelica powder: 5g Gymnema: While the health food obtained 3g has sweet taste and a pure scent, [ health food ] It has the outstanding physiology effect by auxiliary ingredients. [0056]As working example 6 auxiliary ingredients, the multivitamin agent of working example 2, iron, soybean peptide powder, After having replaced with aloe powder, and having used sweet tea, a multivitamin agent, and iron, and also mixing at a following rate using the same milk fermentation product as working example 2, calcium salt, and an oligosaccharide and preparing uniform powder mixture, it fabricated and tablet-like health food was manufactured.

# [0057]

Lyophilization powder of a kefir: 100g calcium lactate powder: 0.6g cyclic oligosaccharide powder: 3g sweet tea: 1.5g multivitamin agent: 2.5g iron: The health food obtained 3g was health food which has a pure scent and sweet taste and has the outstanding physiology function brought about from auxiliary ingredients.

# [0058]

[Effect of the Invention] The health food of this invention makes milk fermentation products, such as a kefir and yogurt, a principal component, and makes calcium salt and an oligosaccharide an active principle, nucleic acid foodstuffs, a shark cartilage, chlorella, collagen, and agaricus -- a mushroom and a champignon extract. \*\*\*\*\*\*, eucommia ulmoides tea, Eucommia-ulmoides-bark ginseng radix tea, sweet tea, a multivitamin agent, iron, soybean peptide, The peculiar physiology function which was chosen from the group which consists of angelica, an aloe, and Gymnema and which each of these components have since addition combination is carried out by using a kind as auxiliary ingredients at least can act synergistically, and can heighten the synthetic health effect over a human body. By changing the combination and blending ratio of auxiliary ingredients suitably, it is possible to consider it as the health food which differs in a health function according to the purpose. It is foodstuffs outstanding also in taste by flavors, such as sweet taste and aroma, and both small children and old men can eat [ drinking and ] easily.

JP, 09-191852, and A (1997) [FULL CONTENTS]

[Translation done.]